



ASX RELEASE

5 September 2017

ASX: MGV

Musgrave Hits 11m @ 54.0g/t Au at Break of Day

- Extensional drilling at Break of Day has intersected very high-grade gold south of the current resource including the best intersection to date at the deposit:
 - 11m @ 54.0g/t Au from 217m down hole (17MORC084), including:
 - 5m @ 109.6g/t Au from 217m down hole; and
 - 4m @ 10.9g/t Au from 223m down hole
- The intersection is approximately 70m south west of the closest drill hole and may reflect a new high-grade shoot
- The high-grade gold mineralisation at Break of Day is still open to the south and down plunge
- Further assays from the current RC drill program are expected within two weeks

Musgrave Minerals Ltd ("Musgrave" or "the Company") (ASX: **MGV**) is pleased to report the best intersection to date at the Break of Day deposit in the first assay results received from the current extensional reverse circulation ("RC") drilling program. The Break of Day gold deposit is on the Cue Project in the Murchison region of Western Australia (*Figure 1 and 3*). Musgrave recently exercised its pre-emptive right to acquire 100% of the key tenure on the Project including the Break of Day and Lena gold deposits.

Break of Day hosts a combined (Indicated and Inferred) Mineral Resource of 868kt @ 7.15g/t Au for 199koz Au (see ASX announcement 14 July 2017, "Resource Estimate Exceeds 350koz Gold").

Musgrave Managing Director Rob Waugh commented, "This is a wonderful result and creates a significant opportunity for the Company to grow the high-grade Break of Day gold resource. This drilling shows that the mineralisation at Break of Day extends to the south and is still open. We are yet to find the edges of the deposit and Break of Day deposit is proving to be a significant high-grade mineralised gold system."

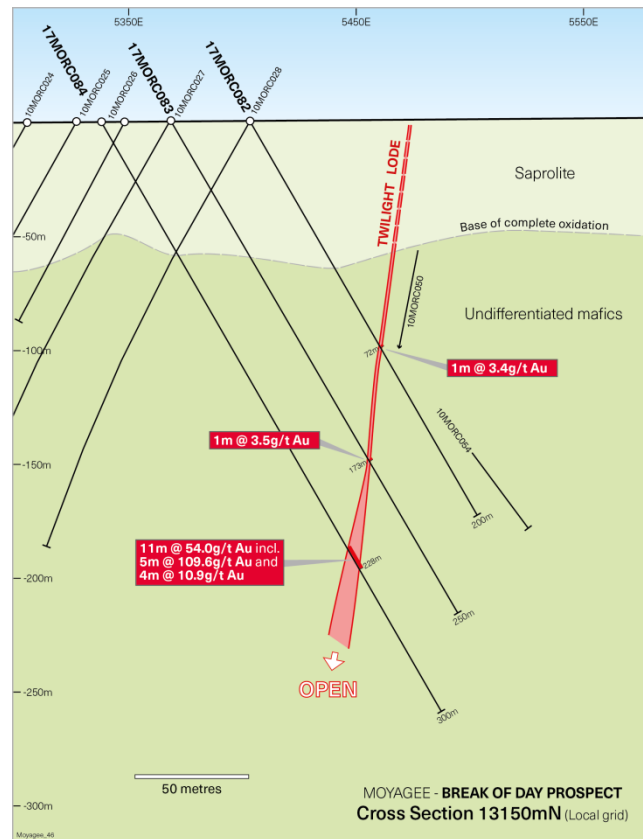


Figure 2: Break of Day cross section 13150mN – local grid
(vertical section through mineralisation)

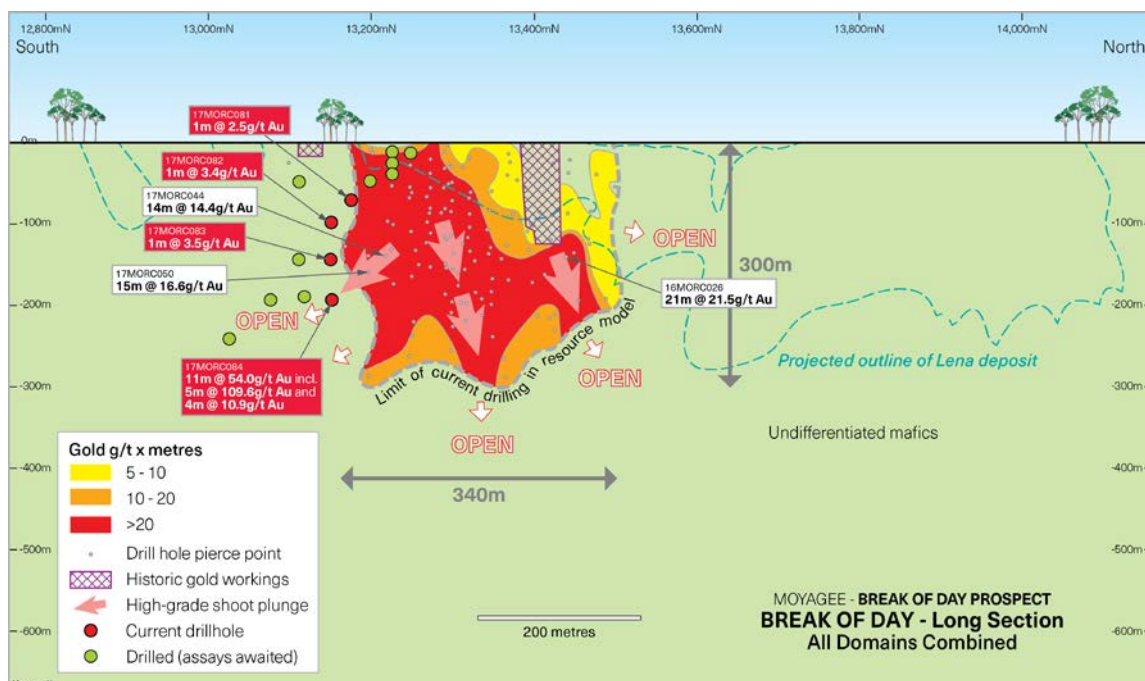


Figure 3: Break of Day schematic long section of the combined Twilight and Velvet gold lodes with new drill hole locations and the projected outline of the Lena deposit which is located approximately 130m west of Break of Day together with new drill target (a long section or longitudinal section is a section along the plane of the lode and in this instance shows gold grade x thickness variability with depth of the combined Lodes)



LOUISE

The Louise gold target is a high priority soil geochemical anomaly 600m south of Break of Day along the same mineralised shear zone. The gold anomaly is 250m wide and has a strike of over 500m with a peak gold soil value of 1,382ppb Au (1.3g/t Au). The target has never been effectively drill tested. The soil anomaly follows a series of old workings analogous to Break of Day.

Drill testing of the new Louise gold target has commenced with three RC drill holes completed to date. Assays are pending.

THE CUE PROJECT

The Cue Project ("the Project") is located in the Murchison district of Western Australia with important key tenure wholly owned by Musgrave Minerals (*Figure 4*). The Project consists of the Moyagee Gold and Hollandaire Copper Resources (see *MGV ASX announcement 14 July 2017, "Resource Estimate Exceeds 350koz Gold"* and *Silver Lake Resources Limited's ASX announcement 26 August 2016, "Mineral Resources and Ore Reserves Update"*).

The Company believes there is significant potential to extend existing mineralisation and also discover new mineralisation within the Project area, shown by the recent drilling success at Break of Day and Lena.

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About Musgrave Minerals

Musgrave Minerals Limited is an active Australian gold and base metals explorer. The Cue Project in the Murchison region of Western Australia is an advanced gold and copper project. Musgrave's focus is to increase gold and copper resources through discovery and extensional drilling to underpin studies that will demonstrate a viable path to development in the near term. Musgrave also holds an active epithermal Ag-Pb-Zn-Cu project in the prospective silver and base metals province of the southern Gawler Craton of South Australia and a large exploration footprint in the Musgrave Province in South Australia. Musgrave has a powerful shareholder base with three mining and exploration companies currently participating as cornerstone investors.

Competent Person's Statement Exploration Results

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled and/or thoroughly reviewed by Mr Robert Waugh, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and a Member of the Australian Institute of Geoscientists (AIG). Mr Waugh is Managing Director and a full-time employee of Musgrave Minerals Ltd. Mr Waugh has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Waugh consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements

This document may contain certain forward-looking statements. Forward-looking statements include, but are not limited to statements concerning Musgrave Minerals Limited's (Musgrave's) current expectations, estimates and projections about the industry in which Musgrave operates, and beliefs and assumptions regarding Musgrave's future performance. When used in this document, words such as "anticipate", "could", "plan", "estimate", "expects", "seeks", "intends", "may", "potential", "should", and similar expressions are forward-looking statements. Although Musgrave believes that its expectations reflected in these forward-looking statements are reasonable, such statements are subject to known and unknown risks, uncertainties and other factors, some of which are beyond the control of Musgrave and no assurance can be given that actual results will be consistent with these forward-looking statements.

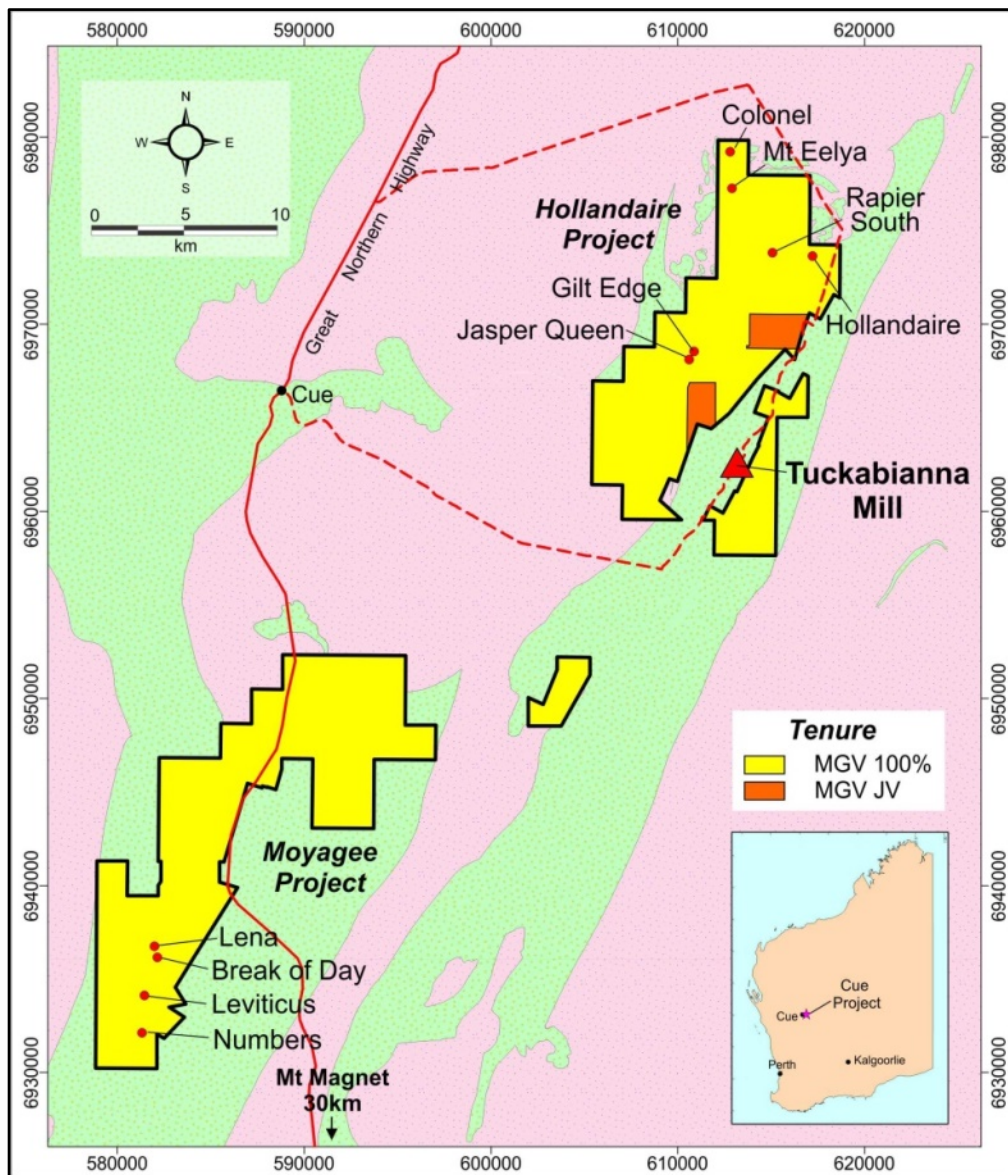


Figure 4: Cue Project location plan and tenure

Table 1: **Summary of Drill Hole Locations and Significant Assay Intervals**

Drill Hole ID	Drill Type	Prospect	Easting (m)	Northing (m)	Azimuth (deg)	Dip (deg)	RL (m)	Total Depth (m)	Sample Type	From (m)	Interval (m)	Au (g/t)	Lode
17MORC081	RC	Break of Day	581900	6936004	120	-60	416	159	Individual 1m	71	1	2.5	Twilight
17MORC082	RC	Break of Day	581862	6935969	120	-60	416	200	Individual 1m	114	1	3.4	Twilight
17MORC083	RC	Break of Day	581831	6935989	120	-60	416	255	Individual 1m	172	1	3.5	Twilight
17MORC084	RC	Break of Day	581805	6936005	120	-60	416	303	Individual 1m	217	11	54.0	Twilight
									including	217	5	109.6	Twilight
									and	223	4	10.9	Twilight
17MORC085	RC	Break of Day	581778	6935992	120	-56	416	193	Assays Awaited				
17MORC086	RC	Break of Day	581772	6935995	120	-56	416	327	Assays Awaited				
17MORC089	RC	Break of Day	581875	6935903	120	-60	416	111	Assays Awaited				
17MORC090	RC	Break of Day	581807	6935945	120	-65	416	279	Assays Awaited				
17MORC091	RC	Break of Day	581761	6935974	120	-64	416	309	Assays Awaited				
17MORC092	RC	Break of Day	581931	6936044	120	-60	416	81	Assays Awaited				
17MORC093	RC	Break of Day	581945	6936007	120	-60	416	123	Assays Awaited				
17MORC096	RC	Break of Day	581770	6935938	120	-60	416	287	Assays Awaited				
17MORC097	RC	Break of Day	581987	6935979	120	-60	416	63	Assays Awaited				
17MORC098	RC	Break of Day	581966	6935992	120	-60	416	98	Assays Awaited				

Notes to Table 1

1. An accurate dip and strike and the controls on mineralisation are only interpreted and the true width of mineralisation is likely be 60-80% of the intersection width
2. At Break of Day and Lena composite 6 metre samples were collected. One metre individual samples within the vein lodes are submitted for priority analysis and where 6m composite assays were greater than 0.1g/t Au. All samples are analysed using a 50g fire assay with ICP-MS (inductively coupled plasma - mass spectrometry) finish gold analysis (0.005ppm detection limit) by Genalysis-Intertek in Maddington, Western Australia
3. g/t (grams per tonne), ppm (parts per million), ppb (parts per billion), X = below detection limit
4. NSI (No Significant intersection) – No gold assay above 1g/t
5. Velvet = Interpreted Velvet Gold Lode; Twilight = Interpreted Twilight Gold Lode; Lena = Lena deposit
6. Intersections are calculated over intervals >1g/t where zones of internal dilution are not weaker than 2m @ 0.5g/t Au

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JORC TABLE 1

Section 1 Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	Sampling is undertaken using standard industry practices including the use of duplicates and standards at regular intervals. All Reverse circulation (RC) samples are split to 1-3kg in weight through a cyclone splitter on the drill rig. A Thermo Scientific Niton GoldD XL3+ 950 Analyser is available on site to aid geological interpretation. No XRF results are reported.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	All co-ordinates are in UTM grid (GDA94 Z50) and drill hole collars have been surveyed by differential GPS to an accuracy of 0.01m.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	RC samples were collected as 6m composites for all drill holes in the current program. One metre individual samples are immediately submitted for analysis where a high probability of mineralisation occurs (e.g. quartz vein lode or massive sulphide). All one metre samples are split to 1-3kg in weight through a cyclone splitter which is air blasted clean at the end of each 6m rod. Individual samples weigh less than 3kg to ensure total preparation at the laboratory pulverization stage. The sample size is deemed appropriate for the grain size of the material being sampled. Samples are sent to the Genalysis – Intertek laboratory in Maddington. Samples are pulverized to 85% passing -75um and four metre composite samples are analysed using a 50g fire assay with ICP-MS (inductively coupled plasma - mass spectrometry) finish gold analysis (0.005ppm detection limit). Individual one metre gold samples are analysed using a 50g fire assay with ICP-MS finish for gold.
Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	An RC drilling program was undertaken by Ausdrill with a 5 5/8 inch hammer. A total of 15 RC holes have to date been drilled in this program at Break of Day. Prior to this program a total of more than 119 RC holes and 7 diamond drill holes have been drilled by MGV at Break of Day & Lena. This is MGV's fourth major drilling campaign specifically targeting the Break of Day and Lena gold deposits. Historically Silver Lake Resources Ltd (SLR) undertook RC drilling at Break of Day and Lena between 2010 and 2013 with a number of companies intermittently drilling prior to 2009. A combination of historical RAB, aircore, RC and diamond drilling has been utilised by multiple companies over a thirty year period across the broader project area.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	RC bulk sample weights are observed and noted in a field Toughbook computer by MGV field staff.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Drillers use industry appropriate methods to maximise sample recovery and minimise downhole contamination. A cyclone splitter was utilised to split 1-3kg of sample by weight. The splitter is air blasted clean at the end of each 6m rod.
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	No significant sample loss or bias has been noted.
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	All geological, structural and alteration related observations are stored in the database.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging of lithology, structure, alteration, mineralisation, colour and other features of core or RC chips is undertaken on a routine 1m basis.
	<i>The total length and percentage of the relevant intersections logged.</i>	All drill holes are logged in full on completion.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No diamond drilling was undertaken during this program.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	RC samples are routinely cyclone split and kept dry by the use of pressurised air. Very minimal wet sampling occurred and none during this program.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Drill sample preparation and base metal and precious metal analysis is undertaken by a registered laboratory (Genalysis – Intertek). Sample preparation by dry pulverisation to 85% passing 75 micron.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Field QC procedures involve the use of certified reference standards (1:50), duplicates (~1:30) and blanks (1:50) at appropriate intervals for early stage exploration programs. High, medium and low gold standards are used.

	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Sampling is carried out using standard protocols and QAQC procedures as per industry practice. Duplicate samples are inserted (~1:30) and more frequently when in high grade gold veins, and routinely checked against originals.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate for grain size of sample material to give an accurate indication of gold mineralisation at Break of Day. Sample is collected from full width of sample interval to ensure it is representative of samples lithology.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	One metre individual samples are analysed through potential gold mineralised zones. Analysis is by 50g fire assay with ICP-MS finish for gold. On six metre composite samples, analysis is undertaken by Intertek-Genalysis (a registered laboratory), with 50g fire assay with ICP-MS finish undertaken for gold. Internal certified laboratory QAQC is undertaken including check samples, blanks and internal standards. This methodology is considered appropriate for base metal mineralisation and gold at the exploration phase.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical tools were used to estimate mineral or element percentages. Musgrave utilise a Thermo Scientific Niton GoldD XL3+ 950 Analyser to aid geological interpretation.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Standards, duplicates, blanks, and repeats are utilised as standard procedure. Certified reference materials that are relevant to the type and style of mineralisation targeted are inserted at regular intervals.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Samples are verified by the geologist before importing into the main database (Datashed).
	The use of twinned holes.	No twin holes have been drilled by Musgrave Minerals Ltd during this program.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is collected using a standard set of templates. Geological sample logging is undertaken on one metre intervals for all RC drilling with colour, structure, alteration and lithology recorded for each interval. Data is verified before loading to the database. Geological logging of all samples is undertaken.
	Discuss any adjustment to assay data.	No adjustments or calibrations are made to any assay data reported.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	All maps and locations are in UTM grid (GDA94 Z50) and have been surveyed or measured by hand-held GPS with an accuracy of ± 5 metres. Down hole surveys are undertaken using the axis digital clinometer down hole tool in either continuous reading mode or at regular 20m intervals.
	Specification of the grid system used.	Drill hole and sample site co-ordinates are in UTM grid (GDA94 Z50) and converted from local grid references.
	Quality and adequacy of topographic control.	Historical drill hole collars and RL's are surveyed by qualified surveyors in most instances in the resource areas. Differential GPS is used to survey drill hole collars with an accuracy of ± 0.01 metre including RL's.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Variable drill hole spacings are used to adequately test targets and are determined from geochemical, geophysical and geological data together with historical drilling information. At present at Break of Day a general pattern of 20-40m drill spacings on 25m spaced sections is underway. Historical drill hole spacings at Break of Day are variable although SLR drilled a number of holes at approximately 20m on 50m sections in 2011-12.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	There is a current JORC 2012 Mineral Resource at Break of Day and Lena defined by Musgrave Minerals Ltd. The Mineral Resources estimate at Break of Day and Lena was prepared and disclosed in accordance with the 2012 Edition of the Australian Code of Reporting of Mineral Resources and Ore Reserves (JORC 2012). For further details refer to MGVS ASX announcement 14 July 2017: "Resource Estimate Exceeds 350koz Au".
	Whether sample compositing has been applied.	One metre individual samples routinely split by the drill rig cyclone are undertaken for all RC drill holes but only submitted for analysis where there is a high probability of mineralisation from geological interpretation of the drill samples. Six metre sample compositing has also been undertaken for all drill holes in the current program. Composite sampling is undertaken using a stainless steel spear (trowel) at one metre samples and combined in a calico bag.

Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Drilling is designed to cross the mineralisation as close to perpendicular as possible. Most drill holes are designed at a dip of approximately -60 degrees. The mineralisation at Break of Day and Lena is interpreted to dip between 70-90 degrees to the west. Drill intersections at Break of Day are interpreted to be between 50-80% of the drill intersection width.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No orientation based sampling bias is known at this time.
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by internal staff. Drill samples are stored on site and transported by a licenced reputable transport company to a registered laboratory in Perth (Genalysis-Intertek at Maddington). When at the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis (Lab-Trak system).
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	During the resource estimate an external review of the geological interpretation, data and modelling techniques was undertaken by CSA global.

Section 2 Reporting of Exploration Results

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Break of Day prospect is located on granted mining lease M21/106 and the primary tenement holder is Silver Lake Resources Ltd. Musgrave Minerals has now secured 100% of the Moyagee Project area (see MGX ASX announcement 2 August 2017: "Musgrave Secures 100% of Key Cue Tenure"). The Mt Eelya prospect is located on granted exploration licence E20/608 and the primary tenement holder is Silver Lake Resources Ltd. The Hollandaire and Hollandaire West deposits are located on E20/699 and the primary tenement holder is Musgrave Minerals Ltd. The Hunky Dory prospect is located on granted mining leases M20/225, M20/245, M20/277 and the primary tenement holder is Musgrave Minerals Ltd. Purple Rain is located on M58/224 and the primary tenement holder is Musgrave Minerals Ltd. The Cue project tenements consist of 33 licences (Lena and Break of Day is on M21/106 and Hollandaire E20/699). The tenements are subject to standard Native Title heritage agreements and state royalties. Third party royalties are present on some individual tenements.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenements are in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historical drilling, soil sampling and geophysical surveys have been undertaken in different areas on the tenements intermittently by multiple third parties over a period of more than 30 years. At Break of Day and Lena historical exploration and drilling has been undertaken by a number of companies and most recently by Silver Lake Resources Ltd in 2010-11.
Geology	Deposit type, geological setting and style of mineralisation.	Geology comprises typical Archaean Yilgarn greenstone belt lithologies and granitic intrusives. Two main styles of mineralisation are present, typical Yilgarn Archaean lode gold and volcanic massive sulphide (VMS) base metal and gold mineralisation within the Eelya Felsic Complex.
Drill hole information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: eastings and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length.	All relevant historical drill hole information has previously been reported by SLR and MGX. All new drill holes completed and assayed by MGX are referenced in this release.

Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	All significant new drill hole assay data are reported in this release. No cut-off has been applied to any sampling.
	<i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	All significant new drill hole assay data are reported in this release. No cut-off has been applied to any sampling.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalent values have been reported.
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	All significant new drill hole assay data are reported in this release. True widths are not confirmed but all drilling is planned close to perpendicular to interpreted targets.
Diagrams	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Diagrams referencing new data can be found in the body of this release. Some diagrams referencing historical data can also be found in the body of this report.
Balanced reporting	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	All assays received from Musgrave's drilling are reported in this release.
Other substantive exploration data	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	All new meaningful data is reported in this release. All material results from geochemical and geophysical surveys and drilling related to these prospects has been reported or disclosed previously.
Further work	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	A range of exploration techniques will be considered to progress exploration including additional surface sampling and drilling.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Refer to figures in the body of this announcement.